

Inventor search

CRANE 09/363,748

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(FILE 'HOME' ENTERED AT 17:39:49 ON 29 OCT 2003)

FILE 'HCAPLUS' ENTERED AT 17:40:45 ON 29 OCT 2003

L1 781 S WURTMAN R?/AU
L2 377 S WATKINS C?/AU
L3 1149 S L1-2
L4 0 S L3 AND URIDINE PHOSPHATE
L5 4 S L3 AND URIDINE
SELECT L5 1-4 RN

FILE 'REGISTRY' ENTERED AT 17:42:36 ON 29 OCT 2003

L6 23 S E1-23
SAVE TEMP L6 CRA748INV/A

FILE 'HCAPLUS' ENTERED AT 17:43:54 ON 29 OCT 2003

L7 4 S L5 AND L6

=> d ibib abs hitstr ind 1-4

L7 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:473254 HCAPLUS

DOCUMENT NUMBER: 139:26686

TITLE: Compositions containing citicoline for treating memory impairment

INVENTOR(S): Wurtman, Richard J.; Teather, Lisa

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 15 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003114415	A1	20030619	US 2002-73272	20020213
PRIORITY APPLN. INFO.:			US 2001-339445P	P 20011214

AB This invention relates to compns. and methods for preventing and treating cognitive dysfunction or memory impairment. The compns. include an effective amt. of citicoline, or pharmaceutically-acceptable salts thereof, and 1 or more of the compds. selected from the group consisting of linoleic acid and linolenic acid. Other compns. of this invention include an effective amt. of citicoline, or pharmaceutically-acceptable salt thereof, wherein the citicoline is metabolized to form at least one of cytidine, uridine, and choline. Still other compns. of this invention include effective amts. of choline, cytidine, and/or uridine, or their pharmaceutically-acceptable salts. This invention also encompasses methods for prepg. these compns. The ability of citicoline to prevent or minimize the effects of memory impairment was demonstrated in a model of memory impairment in rats. Rats reared under restricted conditions that were not provided with a diet supplemented with citicoline, linoleic acid, and linolenic acid took longer to acquire a hidden platform than rats raised in enriched conditions or rats raised in restricted conditions that received a diet supplemented with citicoline, linoleic acid, and linolenic acid. The supplementation with citicoline, linoleic acid, and linolenic acid improves the memory deficit of rats raised under restricted conditions, to the point that they are able to perform the task with efficiency similar to that of rats raised under enriched conditions.

IT 58-96-8, Uridine 62-49-7, Choline

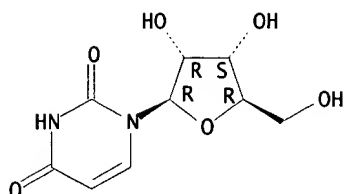
65-46-3, Cytidine

RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)
(compns. contg. citicoline for treating memory impairment)

RN 58-96-8 HCAPLUS

CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 62-49-7 HCAPLUS

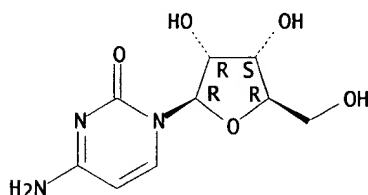
CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl- (9CI) (CA INDEX NAME)

$\text{Me}_3\text{N}-\text{CH}_2-\text{CH}_2-\text{OH}$

RN 65-46-3 HCAPLUS

CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 60-33-3, Linoleic acid, biological studies 463-40-1,

Linolenic acid 506-32-1, Arachidonic acid 987-78-0,

Citicoline 25167-62-8, Docosahexaenoic acid

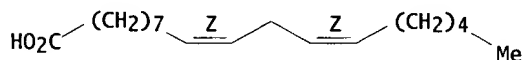
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(comps. contg. citicoline for treating memory impairment)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

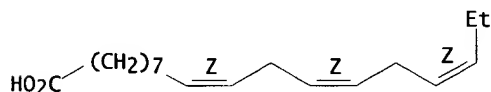
Double bond geometry as shown.



RN 463-40-1 HCAPLUS

CN 9,12,15-Octadecatrienoic acid, (9Z,12Z,15Z)- (9CI) (CA INDEX NAME)

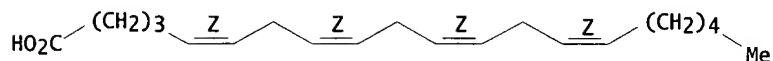
Double bond geometry as shown.



RN 506-32-1 HCAPLUS

CN 5,8,11,14-Eicosatetraenoic acid, (5Z,8Z,11Z,14Z)- (9CI) (CA INDEX NAME)

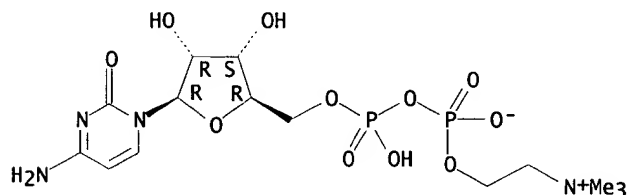
Double bond geometry as shown.



RN 987-78-0 HCAPLUS

CN Cytidine 5'-(trihydrogen diphosphate), P'-[2-(trimethylammonio)ethyl] ester, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



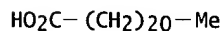
RN 25167-62-8 HCAPLUS

CN Docosahexaenoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 112-85-6

CMF C22 H44 O2



IC ICM A61K031-7072

ICS A61K031-202; A61K031-513

NCL 514051000; 514560000

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

ST citicoline memory impairment prevention; fatty acid citicoline memory impairment prevention

IT Mental disorder

(cognitive; compns. contg. citicoline for treating memory impairment)

IT Fatty acids, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(compns. contg. citicoline for treating memory impairment)

IT Cognition

(disorder; compns. contg. citicoline for treating memory impairment)

IT Memory, biological

(retention defect; compns. contg. citicoline for treating memory impairment)

IT 58-96-8, Uridine 62-49-7, Choline

65-46-3, Cytidine

RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)

(compns. contg. citicoline for treating memory impairment)

IT 60-33-3, Linoleic acid, biological studies 463-40-1,

Linolenic acid 506-32-1, Arachidonic acid 987-78-0,

Citicoline 25167-62-8, Docosahexaenoic acid

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(compns. contg. citicoline for treating memory impairment)

L7 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:293993 HCAPLUS

DOCUMENT NUMBER: 139:211263

TITLE: Stimulation of CDP-choline synthesis by
uridine or cytidine in PC12 rat
pheochromocytoma cells

AUTHOR(S): Richardson, U. Ingrid; Watkins, Carol J.;

Pierre, Celine; Ulus, Ismael H.; Wurtman, Richard J.
 CORPORATE SOURCE: Department of Brain and Cognitive Sciences,
 Massachusetts Institute of Technology, Cambridge, MA,
 02139, USA
 SOURCE: Brain Research (2003), 971(2), 161-167
 CODEN: BRREAP, ISSN: 0006-8993
 PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Oral administration of CDP-choline to rats raises plasma and brain cytidine levels and increases brain levels of phosphatidylcholine (PC). In contrast, in humans oral CDP-choline increases plasma levels of uridine. To det. whether uridine can also enhance PC synthesis, we developed an assay for CDP-choline, an immediate and rate-limiting precursor in PC synthesis, and measured this intermediate in clonal PC12 rat pheochromocytoma cells incubated with various concns. of uridine or cytidine. Addn. of uridine (50-100 .mu.M) to the incubation medium caused significant elevations in UTP, CT, USAP and CDP-choline levels in PC12 cells. Uridine had no effect on the synthesis of diacylglycerol (DAG) or the activity of the phosphotransferase which catalyzes the synthesis of PC from DAG and CDP-choline. Hence uridine treatment was unlikely to inhibit the conversion of endogenous CDP-choline to PC. These results suggest the possibility that uridine may also enhance PC synthesis in intact brain.

IT 9026-13-5
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (in stimulation of CDP-choline synthesis by uridine or
 cytidine in PC12 rat pheochromocytoma cells)

RN 9026-13-5 HCAPLUS

CN Cholinephosphotransferase, diacylglycerol (9CI) (CA INDEX NAME)

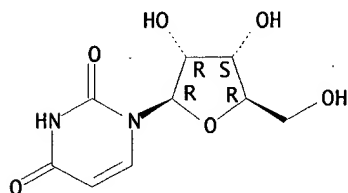
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 58-96-8, Uridine 65-46-3, Cytidine
 987-78-0, CDP-choline
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (stimulation of CDP-choline synthesis by uridine or cytidine
 in PC12 rat pheochromocytoma cells)

RN 58-96-8 HCAPLUS

CN Uridine (8CI, 9CI) (CA INDEX NAME)

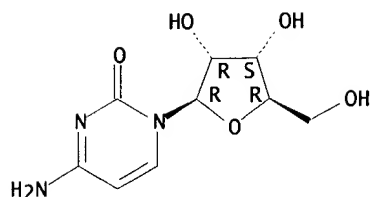
Absolute stereochemistry. Rotation (+).



RN 65-46-3 HCAPLUS

CN Cytidine (8CI, 9CI) (CA INDEX NAME)

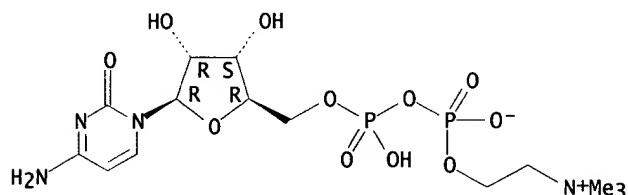
Absolute stereochemistry.



RN 987-78-0 HCAPLUS

CN Cytidine 5'-(trihydrogen diphosphate), P'-[2-(trimethylammonio)ethyl] ester, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



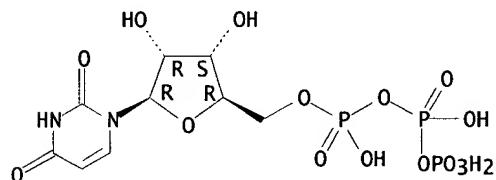
IT 63-39-8, UTP 65-47-4, CTP

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(stimulation of CDP-choline synthesis by uridine or cytidine
in PC12 rat pheochromocytoma cells in relation to)

RN 63-39-8 HCAPLUS

CN Uridine 5'-(tetrahydrogen triphosphate) (8CI, 9CI) (CA INDEX NAME)

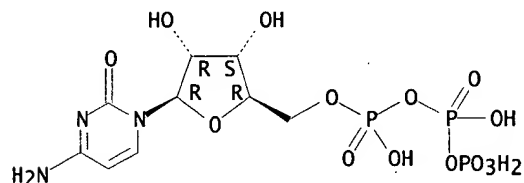
Absolute stereochemistry.



RN 65-47-4 HCAPLUS

CN Cytidine 5'-(tetrahydrogen triphosphate) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 13-2 (Mammalian Biochemistry)

ST CDP choline formation uridine cytidine PC12 cell

IT Animal cell line

(PC12; stimulation of CDP-choline synthesis by uridine or
cytidine in PC12 rat pheochromocytoma cells in relation to)

IT Human

(stimulation of CDP-choline synthesis by uridine or cytidine
in PC12 rat pheochromocytoma cells in relation to)

IT Phosphatidylcholines, biological studies
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (stimulation of CDP-choline synthesis by **uridine** or cytidine
 in PC12 rat pheochromocytoma cells in relation to)

IT 9026-13-5
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (in stimulation of CDP-choline synthesis by **uridine** or
 cytidine in PC12 rat pheochromocytoma cells)

IT 58-96-8, Uridine 65-46-3, Cytidine
 987-78-0, CDP-choline
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (stimulation of CDP-choline synthesis by **uridine** or cytidine
 in PC12 rat pheochromocytoma cells)

IT 63-39-8, UTP 65-47-4, CTP
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (stimulation of CDP-choline synthesis by **uridine** or cytidine
 in PC12 rat pheochromocytoma cells in relation to)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2000:621997 HCAPLUS
 DOCUMENT NUMBER: 133:329102
 TITLE: Effect of oral CDP-choline on plasma choline and
uridine levels in humans
 AUTHOR(S): Wurtman, R. J.; Regan, M.; Ulus, I.; Yu, L.
 CORPORATE SOURCE: Department of Brain & Cognitive Sciences,
 Massachusetts Institute of Technology, Cambridge, MA,
 02139, USA
 SOURCE: Biochemical Pharmacology (2000), 60(7), 989-992
 CODEN: BCPCA6; ISSN: 0006-2952
 PUBLISHER: Elsevier Science Inc.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

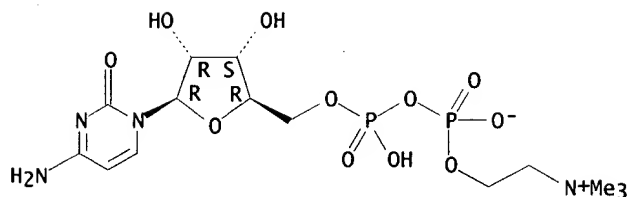
AB Twelve mildly hypertensive but otherwise normal fasting subjects received
 each of four treatments in random order: CDP-choline (citicoline; 500,
 2000, and 4000 mg) or a placebo orally at 8:00 a.m. on four different
 treatment days. Eleven plasma samples from each subject, obtained just
 prior to treatment (8:00 a.m.) and 1-12 h thereafter, were assayed for
 choline, cytidine, and **uridine**. Fasting terminated at noon with
 consumption of a light lunch that contained about 100 mg choline. Plasma
 choline exhibited dose-related increases in peak values and areas under
 the curves (AUCs), remaining significantly elevated, after each of the
 three doses, for 5, 8, and 10 h, resp. Plasma **uridine** was
 elevated significantly for 5-6 h after all three doses, increasing by as
 much as 70-90% after the 500 mg dose, and by 100-120% after the 2000 mg
 dose. No further increase was noted when the dose was raised from 2000 to
 4000 mg. Plasma cytidine was not reliably detectable, since it was less
 than twice blank, or less than 100 nM, at all of the doses.
Uridine is known to enter the brain and to be converted to UTP;
 moreover, we found that **uridine** was converted directly to CTP in
 neuron-derived PC-12 cells. Hence, it seems likely that the circulating
 substrates through which oral citicoline increases membrane phosphatide
 synthesis in the brains of humans involve **uridine** and choline,
 and not cytidine and choline as in rats.

IT 987-78-0, CDP-choline
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological
 process); BSU (Biological study, unclassified); BIOL (Biological study);
 PROC (Process)
 (effect of oral CDP-choline on plasma choline and **uridine**
 levels in humans)

RN 987-78-0 HCAPLUS

CN Cytidine 5'-(trihydrogen diphosphate), P'-[2-(trimethylammonio)ethyl]
 ester, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



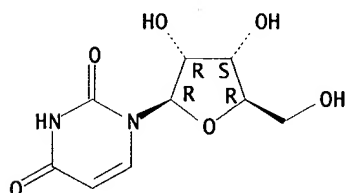
IT 58-96-8, Uridine 62-49-7, Choline
65-46-3, Cytidine

RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PROC (Process)
(effect of oral CDP-choline on plasma choline and uridine levels in humans)

RN 58-96-8 HCAPLUS

CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 62-49-7 HCAPLUS

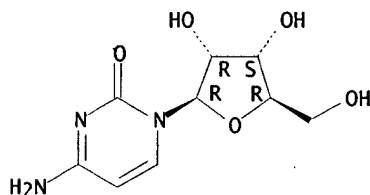
CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl- (9CI) (CA INDEX NAME)

Me₃N-CH₂-CH₂-OH

RN 65-46-3 HCAPLUS

CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 1-2 (Pharmacology)

ST citicoline metab choline uridine brain phosphatidylcholine

IT Brain

Species differences

(effect of oral CDP-choline on plasma choline and uridine levels in humans)

IT Phosphatidylcholines, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(effect of oral CDP-choline on plasma choline and uridine levels in humans)

IT 987-78-0, CDP-choline

RL: BAC (Biological activity or effector, except adverse); BPR (Biological

process); BSU (Biological study, unclassified); BIOL (Biological study);
 PROC (Process)
 (effect of oral CDP-choline on plasma choline and uridine
 levels in humans)

IT 58-96-8, Uridine 62-49-7, Choline

65-46-3, Cytidine

RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological
 study, unclassified); MFM (Metabolic formation); BIOL (Biological study);
 FORM (Formation, nonpreparative); OCCU (Occurrence); PROC (Process)
 (effect of oral CDP-choline on plasma choline and uridine
 levels in humans)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:98343 HCAPLUS

DOCUMENT NUMBER: 132:132349

TITLE: Methods using uridine or a uridine
 source for increasing cytidine levels in vivo and
 treating cytidine-dependent human neurological
 diseases

INVENTOR(S): Watkins, Carol; Wurtman, Richard J.

PATENT ASSIGNEE(S): Massachusetts Institute of Technology, USA

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000006174	A1	20000210	WO 1999-US17235	19990730
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2339008	AA	20000210	CA 1999-2339008	19990730
EP 1140104	A1	20011010	EP 1999-937631	19990730
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 2002028787	A1	20020307	US 1999-363748	19990730
JP 2003517437	T2	20030527	JP 2000-562028	19990730
PRIORITY APPLN. INFO.:			US 1998-95002P P	19980731
			WO 1999-US17235 W	19990730

AB Methods of treating certain neurol. diseases using exogenous
 uridine or a uridine source alone as a precursor of
 endogenous cytidine, particularly in the human brain, are disclosed.
 Methods are also disclosed in which exogenous uridine or a
 uridine source is combined either with drugs increasing
 uridine availability or with compds. that serve as a source of
 choline in phospholipid synthesis.

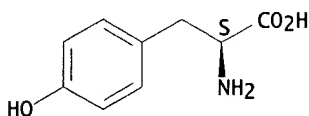
IT 60-18-4, Tyrosine, analysis

RL: ARU (Analytical role, unclassified); ANST (Analytical study)
 (cytidine-tyrosine sepn. in HPLC; uridine or uridine
 source for increasing cytidine levels in vivo and treating
 cytidine-dependent human neurol. diseases)

RN 60-18-4 HCAPLUS

CN L-Tyrosine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

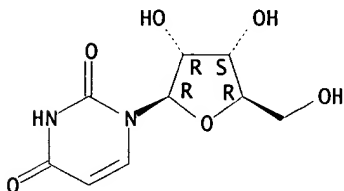


IT 9030-22-2, Uridine phosphorylase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (inhibitors; uridine or uridine source for
 increasing cytidine levels in vivo and treating cytidine-dependent
 human neurol. diseases)
 RN 9030-22-2 HCAPLUS
 CN Phosphorylase, uridine (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

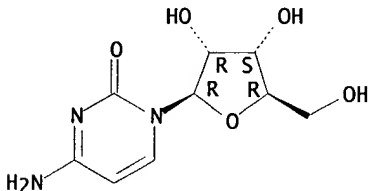
IT 58-96-8, Uridine
 RL: ANT (Analyte); BAC (Biological activity or effector, except adverse);
 BSU (Biological study, unclassified); THU (Therapeutic use); ANST
 (Analytical study); BIOL (Biological study); USES (Uses)
 (uridine or uridine source for increasing cytidine
 levels in vivo and treating cytidine-dependent human neurol. diseases).
 RN 58-96-8 HCAPLUS
 CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

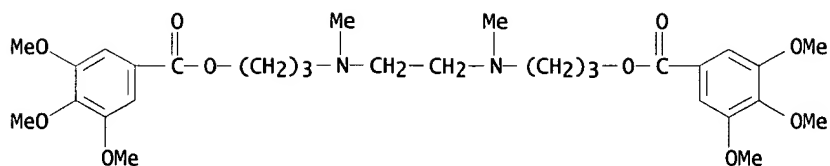


IT 65-46-3, Cytidine
 RL: ANT (Analyte); BPR (Biological process); BSU (Biological study,
 unclassified); ANST (Analytical study); BIOL (Biological study); PROC
 (Process)
 (uridine or uridine source for increasing cytidine
 levels in vivo and treating cytidine-dependent human neurol. diseases)
 RN 65-46-3 HCAPLUS
 CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

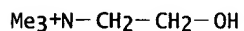


IT 54-03-5, Hexobendine 62-49-7, Choline 67-48-1,
 Choline chloride 87-67-2, Choline bitartrate, biological studies
 563-24-6, Glycerophosphatidylcholine 563-24-6D,
 Glycerophosphocholine, acyl derivs. 987-78-0, CDP-choline
 5909-45-5D, derivs. 5983-09-5, 2',3'-Dideoxyuridine
 23464-76-8, Choline stearate 26287-69-4, L-
 Uridine 35898-87-4, Dilazep 153547-98-9
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)
 (uridine or uridine source for increasing cytidine
 levels in vivo and treating cytidine-dependent human neurol. diseases)
 RN 54-03-5 HCAPLUS
 CN Benzoic acid, 3,4,5-trimethoxy-, 1,2-ethanediylbis[(methylimino)-3,1-
 propanediyl] ester (9CI) (CA INDEX NAME)



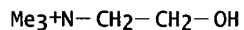
RN 62-49-7 HCAPLUS

CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl- (9CI) (CA INDEX NAME)



RN 67-48-1 HCAPLUS

CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)



RN 87-67-2 HCAPLUS

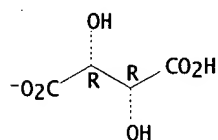
CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl-, salt with (2R,3R)-2,3-dihydroxybutanedioic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 49681-69-8

CMF C4 H5 O6

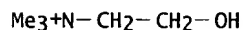
Absolute stereochemistry.



CM 2

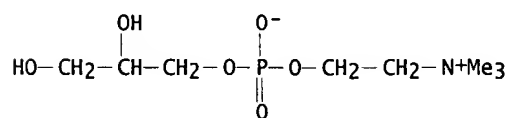
CRN 62-49-7

CMF C5 H14 N O



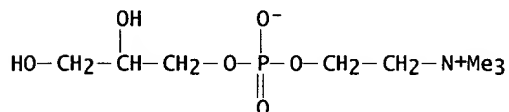
RN 563-24-6 HCAPLUS

CN Ethanaminium, 2-[[[(2,3-dihydroxypropoxy)hydroxyphosphinyloxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)



RN 563-24-6 HCAPLUS

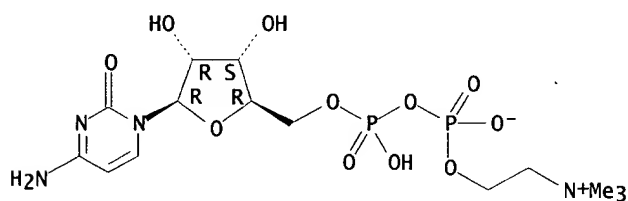
CN Ethanaminium, 2-[[[(2,3-dihydroxypropoxy)hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)



RN 987-78-0 HCAPLUS

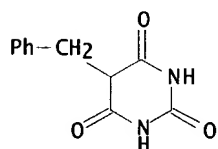
CN Cytidine 5'-(trihydrogen diphosphate), P'-[2-(trimethylammonio)ethyl] ester, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 5909-45-5 HCAPLUS

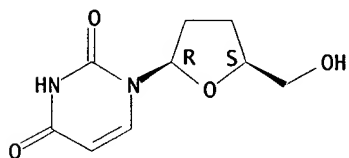
CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 5983-09-5 HCAPLUS

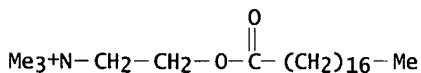
CN Uridine, 2',3'-dideoxy- (7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 23464-76-8 HCAPLUS

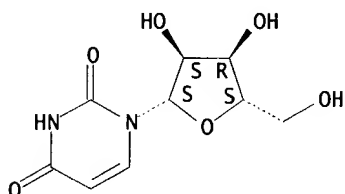
CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxooctadecyl)oxy]- (9CI) (CA INDEX NAME)



RN 26287-69-4 HCAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-.beta.-L-ribofuranosyl- (9CI) (CA INDEX NAME)

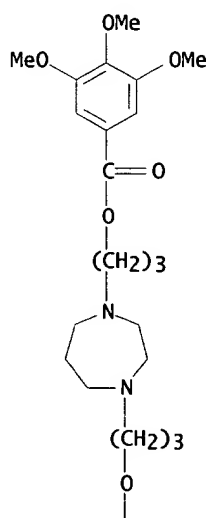
Absolute stereochemistry. Rotation (-).



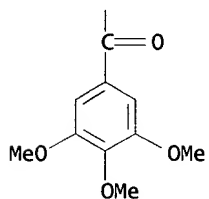
RN 35898-87-4 HCAPLUS

CN Benzoic acid, 3,4,5-trimethoxy-, (tetrahydro-1H-1,4-diazepine-1,4(5H)-diyl)di-3,1-propanediyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



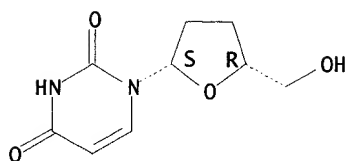
PAGE 2-A



RN 153547-98-9 HCAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5R)-tetrahydro-5-(hydroxymethyl)-2-furanyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



- IC ICM A61K031-55
ICS A61K031-70; A61K031-235; A61K031-515; A61K031-685
CC 1-11 (Pharmacology)
ST uridine cytidine precursor neurol disease treatment; choline
source uridine neurol disease treatment
IT AIDS (disease)
AIDS (disease)
(AIDS dementia complex; uridine or uridine source
for increasing cytidine levels in vivo and treating cytidine-dependent
human neurol. diseases)
IT Mental disorder
Mental disorder
(AIDS dementia; uridine or uridine source for
increasing cytidine levels in vivo and treating cytidine-dependent
human neurol. diseases)
IT Nervous system
(Friedreich's ataxia; uridine or uridine source for
increasing cytidine levels in vivo and treating cytidine-dependent
human neurol. diseases)
IT Nervous system
(Huntington's chorea; uridine or uridine source for
increasing cytidine levels in vivo and treating cytidine-dependent
human neurol. diseases)
IT Mental disorder
(Pick's disease; uridine or uridine source for
increasing cytidine levels in vivo and treating cytidine-dependent
human neurol. diseases)
IT Mental disorder
(affective, seasonal; uridine or uridine source for
increasing cytidine levels in vivo and treating cytidine-dependent
human neurol. diseases)
IT Brain
(aging, memory decline assocd. with; uridine or
uridine source for increasing cytidine levels in vivo and
treating cytidine-dependent human neurol. diseases)
IT Mental activity
(alertness; uridine or uridine source for
increasing cytidine levels in vivo and treating cytidine-dependent
human neurol. diseases)
IT Nervous system
(ataxia; uridine or uridine source for increasing
cytidine levels in vivo and treating cytidine-dependent human neurol.
diseases)
IT Mental disorder
(attention deficit disorder; uridine or uridine
source for increasing cytidine levels in vivo and treating
cytidine-dependent human neurol. diseases)
IT Aging, animal
(brain, memory decline assocd. with; uridine or
uridine source for increasing cytidine levels in vivo and
treating cytidine-dependent human neurol. diseases)
IT Hypoxia, animal
(cerebrovascular disease from; uridine or uridine
source for increasing cytidine levels in vivo and treating
cytidine-dependent human neurol. diseases)
IT Brain, disease
(cerebrovascular, hypoxia-caused; uridine or uridine
source for increasing cytidine levels in vivo and treating

- cytidine-dependent human neurol. diseases)
- IT Mental activity
(concn. and focus; **uridine** or **uridine** source for
increasing cytidine levels in vivo and treating cytidine-dependent
human neurol. diseases)
- IT HPLC
(cytidine-tyrosine sepn. in; **uridine** or **uridine**
source for increasing cytidine levels in vivo and treating
cytidine-dependent human neurol. diseases)
- IT Mental disorder
(dementia; **uridine** or **uridine** source for increasing
cytidine levels in vivo and treating cytidine-dependent human neurol.
diseases)
- IT Mental disorder
(depression, neurotic; **uridine** or **uridine** source
for increasing cytidine levels in vivo and treating cytidine-dependent
human neurol. diseases)
- IT Mental disorder
(diffuse Lewy body disease; **uridine** or **uridine**
source for increasing cytidine levels in vivo and treating
cytidine-dependent human neurol. diseases)
- IT Nervous system
(disease; **uridine** or **uridine** source for increasing
cytidine levels in vivo and treating cytidine-dependent human neurol.
diseases)
- IT Behavior
Emotion
(disorder; **uridine** or **uridine** source for increasing
cytidine levels in vivo and treating cytidine-dependent human neurol.
diseases)
- IT Mental disorder
(dyslexia; **uridine** or **uridine** source for increasing
cytidine levels in vivo and treating cytidine-dependent human neurol.
diseases)
- IT Spinal cord
(injury, behavioral or neurol. syndrome after anoxia or;
uridine or **uridine** source for increasing cytidine
levels in vivo and treating cytidine-dependent human neurol. diseases)
- IT Mental disorder
(mania; **uridine** or **uridine** source for increasing
cytidine levels in vivo and treating cytidine-dependent human neurol.
diseases)
- IT Mental disorder
(manic bipolar disorder; **uridine** or **uridine** source
for increasing cytidine levels in vivo and treating cytidine-dependent
human neurol. diseases)
- IT Anxiety
(panic; **uridine** or **uridine** source for increasing
cytidine levels in vivo and treating cytidine-dependent human neurol.
diseases)
- IT Nervous system
(peripheral, disease; **uridine** or **uridine** source for
increasing cytidine levels in vivo and treating cytidine-dependent
human neurol. diseases)
- IT Poliomyelitis
(post-polio syndrome; **uridine** or **uridine** source for
increasing cytidine levels in vivo and treating cytidine-dependent
human neurol. diseases)
- IT Brain, disease
(stroke; **uridine** or **uridine** source for increasing
cytidine levels in vivo and treating cytidine-dependent human neurol.
diseases)
- IT Nervous system
(tardive dyskinesia; **uridine** or **uridine** source for
increasing cytidine levels in vivo and treating cytidine-dependent
human neurol. diseases)
- IT Brain, disease

- (trauma, behavioral or neurol. syndrome after; uridine or uridine source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
- IT Anti-ischemic agents
 Antidepressants
 Antiparkinsonian agents
 Antipsychotics
 Anxiolytics
 Blood analysis
 Cognition enhancers
 Movement disorders
 Muscular dystrophy
 Myasthenia gravis
 Nervous system agents
 Neuromuscular diseases
 Schizophrenia
 Stress, animal
 (uridine or uridine source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
- IT Fatty acids, biological studies
 Lecithins
 Lysophosphatidylcholines
 Sphingomyelins
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (uridine or uridine source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
- IT Biological transport
 Kidney
 (uridine renal transport competitors; uridine or uridine source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
- IT 60-18-4, Tyrosine, analysis
 RL: ARU (Analytical role, unclassified); ANST (Analytical study)
 (cytidine-tyrosine sepn. in HPLC; uridine or uridine source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
- IT 9030-22-2, Uridine phosphorylase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (inhibitors; uridine or uridine source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
- IT 58-96-8, Uridine
 RL: ANT (Analyte); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (uridine or uridine source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
- IT 65-46-3, Cytidine
 RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
 (uridine or uridine source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
- IT 54-03-5, Hexobendine 62-49-7, Choline 67-48-1, Choline chloride 87-67-2, Choline bitartrate, biological studies 563-24-6, Glycerophosphatidylcholine 563-24-6D, Glycerophosphocholine, acyl derivs. 987-78-0, CDP-choline 5909-45-5D, derivs. 5909-45-5D, derivs. 5983-09-5, 2',3'-Dideoxyuridine 23464-76-8, Choline stearate 26287-69-4, L-Uridine 35898-87-4, Dilazep 153547-98-9
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (uridine or uridine source for increasing cytidine

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levels in vivo and treating cytidine-dependent human neurol. diseases)
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS
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